

REMARKS

STATUS OF THE CLAIMS

In accordance with the foregoing, claims 1 and 6 have been amended. Claims 1-4 and 6 are pending and under consideration.

No new matter is being presented, and approval of the amended claims is respectfully requested.

REJECTIONS OF CLAIMS 1, 3 AND 4 UNDER 35 U.S.C. §102(e) AS BEING ANTICIPATED BY WOLF (U.S. PATENT NO. 6,741,812)

The rejections of claims 1, 3 and 4 are respectfully traversed and reconsideration is requested.

Wolf discloses a synchronous digital communications system (such as SDH and SONET) formed by a plurality of network elements correspond to nodes such as an exchange, cross-connect, add/drop multiplexer and others, at the terminal of the WDM transmission line formed in a star shape.

Of these plural network elements, the first network element send a reference clock (used for synchronizing) to the second network element via the WDM transmission line connected to the local station. The reference clock here is sent as an optical signal of the first wavelength.

The second network element sends the reference clock to the third network element via the WDM transmission line connected to the local station. The reference clock here is sent as an optical signal of the second wavelength. The third network element, and others thereafter, each send the reference clock to the next network element via the WDM transmission line connected to the local station. The reference clocks are serially distributed in sequence, as optical signal of unique wavelengths. The reference clocks distributed as such are referred to as standards for synchronizing within the plurality network elements.

In contrast, as recited in independent claim 1, the plurality of signal conversion apparatuses with the reference signal receiving section are all elements provided within the wavelength multiplexing apparatus.

Moreover, in claim 1 of the present invention, only the multiplexing section is connected to the wavelength-multiplexing transmission line. The plurality of signal conversion apparatuses, the reference signal receiving section, and the reference signal distribution section are never connected to the wavelength-multiplexing transmission line, as discloses by Wolf.

Instead, the reference optical signals received by the reference signal receiving section, according to claim 1, are distributed in parallel to all or part of the plural signal conversion apparatuses, by the reference signal distribution section. However, the transmission line used for the distribution is not the wavelength-multiplexing transmission line, but optical transmission lines used for transmission of different optical signals and respectively formed between each of the plurality of signal conversion apparatuses and the reference signal distributing section of the present invention, as recited in claim 1. (See also Fig. 1).

Further, in the wavelength multiplexing apparatus recited in claim 1, the reference signal is distributed from a specific signal conversion apparatus to another signal conversion apparatus within the above-mentioned plural signal conversion apparatuses. The distribution is done by the reference signal receiving section and the reference signal distributing section cooperating with each other. The reference signal as such is not used for synchronizing between nodes, as in Wolf, but is used for synchronizing between plural optical signals having different wavelengths subject to multiplexing suitable for the WDM method (or plural optical signals having different wavelengths, obtained by performing demultiplexing suitable for the WDM method).

Thus, the wavelength multiplexing apparatus of the present claim 1 clearly differs in configuration from Wolf. By having such differences, the present invention can in effect attain unique advantageous effects that are not achievable by Wolf, such as: at a low cost, flexibly satisfying demands for office establishment, due to the efficient arrangement of the apparatus in the office premises, maintaining and operating the apparatus at a low cost, maintaining transmission quality at high level, and simplifying and standardizing the configuration of optical transmission lines which are necessary for directly delivering a reference optical signal among a plurality of signal conversion apparatuses (see page 9, lines 11-17, of the present Specification).

Therefore, it is respectfully submitted that independent claim 1 patentably distinguishes over the prior art.

Claims 3 and 4 depend from claim 1 and inherit the patentable recitations thereof. Thus, it is further submitted that claims 3 and 4 also patentably distinguish over the prior art.

REJECTIONS OF CLAIMS 2 AND 6 FOR OBVIOUSNESS UNDER 35 U.S.C. §103(a) AS BEING UNPATENTABLE OVER WOLF IN VIEW OF ENDRIZ ET AL. (U.S. PATENT NO. 5,657,153)

The rejections of claims 2 and 6 are respectfully traversed and reconsideration is requested.

Claim 2 depends from claim 1 which, as stated above, patentably distinguishes over the prior art.

Independent claim 6 recites similar functional recitations to those of independent claim 1 and, thus, it is respectfully submitted that claim 6 patentably distinguishes over Wolf for at least the reasons provided above for claim 1.

Furthermore, Endriz et al. is merely cited as disclosing an amplifier for a WDM system where a signal is converted from electrical to optical and then wavelength multiplexed as part of an amplifier pump signal, and demultiplexed at the received end, to provide communication using the amplifier pump signal. It is submitted, however, that Endriz et al. fails to teach or suggest the features of independent claims 1 and 6, described above.

Thus, it is respectfully submitted that claims 2 and 6 patentably distinguish over the prior art.

CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. Further, all pending claims patentably distinguish over the prior art. There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

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Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: 
H. J. Staas
Registration No. 22,010

1201 New York Avenue, NW, 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501